

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/000540

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C12N 15/70, C12N 15/61

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, EPO-INTERNAL, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Protein Science, Volume 4, 1995, Arnold Andersson et al, "Purification and preliminary X-ray crystallographic studies of recombinant L-ribulose-5-phosphate 4-epimerase from Escherichia coli" pages 1648-1650, page 1648, column 2, paragraph 2-3, abstract	8
Y	--	9-12
Y	WO 02090558 A1 (FIT BIOTECH OYJ PLC), 14 November 2002 (14.11.2002), (cited in the application, abstract)	9-12

 Further documents are listed in the continuation of Box C. See patent family annex.

- * Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
 - "E" earlier application or patent but published on or after the international filing date
 - "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 - "O" document referring to an oral disclosure, use, exhibition or other means
 - "P" document published prior to the international filing date but later than the priority date claimed
 - "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 - "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 - "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 - "&" document member of the same patent family

Date of the actual completion of the international search

18 January 2005

Date of mailing of the international search report

20-01-2005

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86

Authorized officer

IDA CHRISTENSEN/BS
Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI 2004/000540

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>Carcinogenesis, Volume 14, No. 2, 1993, Rafael R. Ariza et al, "A method for selection of forward mutations in supF gene carried by shuttle-vector plasmids", pages 303-305, page 303, column 2, paragraph 3, table 1</p> <p>--</p>	13-15
A	<p>PNAS, Volume 97, No. 12, June 2000, Kirill A. Datsenko et al, "One-step inactivation of chromosomal genes in Escherichia coli K-12 using PCR products", pages 6640-6645, abstract</p> <p>--</p>	1-24
A	<p>Journal of Bacteriology, Volume 172, No. 11, November 1990, Marta Herrero et, "Transposon Vectors Containing Non-Antibiotic Resistance Selection Markers for Cloning and Stable Chromosomal Insertion of Foreign Genes in Gram-Negative Bacteria", pages 6557-6567, abstract</p> <p>--</p>	1-24
A	<p>Journal of Bacteriology, Volume 84, 1962, E. Englesberg et al, "L-Arabinose-sensitive, L-ribulose 5-phosphate 4-epimerase-deficient mutants of Escherichia coli", pages 137-146, abstract</p> <p>--</p> <p>-----</p>	13-21

INTERNATIONAL SEARCH REPORT

Information on patent family members

31/12/2004

International application No.

PCT/FI 2004/000540

WO	02090558	A1	14/11/2002	AP	200302914	D	00/00/0000
				BR	0209416	A	30/03/2004
				CA	2446260	A	14/11/2002
				CZ	20033201	A	12/05/2004
				EE	200300483	A	15/04/2004
				EP	1390516	A	25/02/2004
				FI	20010922	A	04/11/2002
				HU	0304053	A	29/03/2004
				JP	2004533247	T	04/11/2004
				SK	14692003	A	07/07/2004
				US	20030129169	A	10/07/2003